

In the claims:

Claim 1. (Currently amended) An adhesive for bonding an optoelectronic device within a hermetically sealable package comprising:

a low outgassing adhesive selected to limit the outgassing of organic molecules in a cured state, said low outgassing adhesive comprising an epoxy adhesive including one of an aliphatic, a cycloaliphatic, and an aromatic backbone containing more than one alpha-oxirane group capable of being polymerized.

Claims 2 - 5. (cancelled)

Claim 6. (currently amended) The adhesive according to claim 5~~1~~, wherein said adhesive compositions further comprise an epoxy resin.

Claim 7. (original) The adhesive according to claim 6, wherein said adhesive compositions may further comprise a monofunctional epoxy resin in the amount of not more than about 30% by a weight based on a total weight of said epoxy resin.

Claim 8. (original) The adhesive according to claim 6, wherein said adhesive compositions may further comprise a monofunctional epoxy resin in the amount of not more than about 20% by weight based on said total weight of said epoxy resin.

Claim 9. (currently amended) The adhesive according to claim 5~~1~~, wherein said adhesive compositions may further comprise a polyfunctional epoxy resin, said polyfunctional epoxy resin including one of bisphenol A epoxy resins, bisphenol F epoxy resins, phenol novolac epoxy resins, cresol novolac epoxy resins, and combinations including at least one of the forgoing.

Claim 10. (original) The adhesive according to claim 9, wherein said bisphenol A epoxy resins include diglycidyl ether.

Claim 11. (currently amended) The adhesive according to claim 4~~1~~, wherein said epoxy adhesive includes an epoxy resin and a curing agent curable with radiation.

Claim 12. (original) The adhesive according to claim 11, wherein said curing agent includes one of primary, secondary, or tertiary amines and polyamines, substituted ureas,

carboxylic acids, anhydrides, phenols, polyamides, formaldehyde resins, polycarboxylic acid polyesters, Lewis acids and bases, polysulfides, polymercaptans, phenol novolac resin, and combinations including at least one of the forgoing.

Claim 13. (original) The adhesive according to claim 11 wherein said radiation includes one of heat and ultraviolet light.

Claim 14. (original) The adhesive according to claim 1 wherein said adhesive bonds the optoelectronic device to a substrate.

Claim 15. (original) The adhesive according to claim 1 wherein said adhesive bonds a cover to the hermetically sealable package, forming an air tight package.

Claim 16. (original) The adhesive according to claim 1 wherein the optoelectronic device includes one of an optical fiber, an optical fiber array, a waveguide, and an optical diode.

Claim 17. (original) An adhesive for bonding an optoelectronic device within a hermetically sealable package comprising:

a low outgassing adhesive selected to limit the outgassing of organic molecules in a cured state, wherein said low outgassing adhesive includes low volatile organic compounds (VOC), said low VOC have a percent weight loss of less than about 0.5% at a temperature of up to about 120°F (48.9°C).

Claim 18. (currently amended) A hermetically sealable package having an optoelectronic device bonded therein comprising:

a housing configured to form a hermetic seal therein;

an optoelectronic device disposed within said package; and

a low outgassing adhesive bonding said optoelectronic device within said package, said low outgassing adhesive selected to limit the outgassing of organic molecules in a cured state in said hermetically sealable package, said low outgassing adhesive including low volatile organic compounds (VOC), said low VOC have a percent weight loss of less than about 0.5% at a temperature of up to about 120°F (48.9°C).

Claims 19 - 21. (cancelled)

Claim 22. (currently amended) A hermetically sealable package having an optoelectronic device bonded therein comprising:

a housing configured to form a hermetic seal therein;

an optoelectronic device disposed within said package; and

a low outgassing adhesive bonding said optoelectronic device within said package, said low outgassing adhesive selected to limit the outgassing of organic molecules in a cured state in said hermetically sealable package, said low outgassing adhesive comprising an epoxy adhesive including~~The package according to claim 21, wherein said epoxy adhesives further comprise at least one component having~~ one of an aliphatic, a cycloaliphatic, and an aromatic backbone containing more than one alpha-oxirane group capable of being polymerized.

Claim 23. (original) The package according to claim 22, wherein said adhesive compositions further comprise an epoxy resin.

Claim 24. (original) The package according to claim 23, wherein said adhesive compositions may further comprise a monofunctional epoxy resin in the amount of not more than about 30% by a weight based on a total weight of said epoxy resin.

Claim 25. (original) The package according to claim 24, wherein said adhesive compositions may further comprise a monofunctional epoxy resin in the amount of not more than about 20% by weight based on said total weight of said epoxy resin.

Claim 26. (original) The package according to claim 22, wherein said adhesive compositions may further comprise a polyfunctional epoxy resin, said polyfunctional epoxy resin including one of bisphenol A epoxy resins, bisphenol F epoxy resins, phenol novolac epoxy resins, cresol novolac epoxy resins, and combinations including at least one of the foregoing.

Claim 27. (original) The package according to claim 26, wherein said bisphenol A epoxy resins include diglycidyl ether.

Claim 28. (currently amended) The package according to claim ~~24~~22, wherein said epoxy adhesive includes an epoxy resin and a curing agent curable with radiation.

Claim 29. (original) The package according to claim 28, wherein said curing agent includes one of primary, secondary, or tertiary amines and polyamines, substituted ureas, carboxylic acids, anhydrides, phenols, polyamides, formaldehyde resins, polycarboxylic acid polyesters, Lewis acids and bases, polysulfides, polymercaptans, phenol novolac resin, and combinations including at least one of the forgoing.

Claim 30. (original) The package according to claim 28 wherein said radiation includes one of heat and ultraviolet light.

Claim 31. (original) The adhesive according to claim 18, wherein said adhesive bonds the optoelectronic device to a substrate.

Claim 32. (original) The adhesive according to claim 18, wherein said housing includes a cover and package wall, said adhesive bonds said cover to said package wall forming an air tight package.

Claim 33. (original) The adhesive according to claim 18, wherein the optoelectronic device includes one of an optical fiber, an optical fiber array, a waveguide, and an optical diode.

Claim 34. (new) An adhesive for bonding an optoelectronic device within a hermetically sealable package comprising:

a low outgassing adhesive selected to limit the outgassing of organic molecules in a cured state, said low outgassing adhesive comprising an epoxy adhesive including an epoxy resin and a curing agent curable with radiation, said curing agent including one of primary, secondary, or tertiary amines and polyamines, substituted ureas, carboxylic acids, anhydrides, phenols, polyamides, formaldehyde resins, polycarboxylic acid polyesters, Lewis acids and bases, polysulfides, polymercaptans, phenol novolac resin, and combinations including at least one of the forgoing.

Claim 35. (new) The adhesive according to claim 34 wherein said radiation includes one of heat and ultraviolet light.

Claim 36. (new) The adhesive according to claim 34 wherein said adhesive bonds the optoelectronic device to a substrate.

Claim 37. (new) The adhesive according to claim 34 wherein said adhesive bonds a cover to the hermetically sealable package, forming an air tight package.

Claim 38. (new) The adhesive according to claim 34 wherein the optoelectronic device includes one of an optical fiber, an optical fiber array, a waveguide, and an optical diode.

Claim 39. (new) An adhesive for bonding an optoelectronic device within a hermetically sealable package comprising:

a low outgassing adhesive selected to limit the outgassing of organic molecules in a cured state, wherein said adhesive bonds a cover to the hermetically sealable package, forming an air tight package.

Claim 40. (new) The adhesive according to claim 39, wherein said low outgassing adhesive includes a thermosetting adhesive.

Claim 41. (new) The adhesive according to claim 40, wherein said thermosetting adhesive is selected from one of epoxy adhesives, fluorinated ethylene propylene adhesives, acrylic adhesives, and polyester adhesives.

Claim 42. (new) The adhesive according to claim 39 wherein said adhesive bonds the optoelectronic device to a substrate.

Claim 43. (new) The adhesive according to claim 39 wherein the optoelectronic device includes one of an optical fiber, an optical fiber array, a waveguide, and an optical diode.

Claim 44. (new) The adhesive according to claim 17 wherein said adhesive bonds the optoelectronic device to a substrate.

Claim 45. (new) The adhesive according to claim 17 wherein said adhesive bonds a cover to the hermetically sealable package, forming an air tight package.

Claim 46. (new) The adhesive according to claim 17 wherein the optoelectronic device includes one of an optical fiber, an optical fiber array, a waveguide, and an optical diode.

Claim 47. (new) The adhesive according to claim 18 wherein said adhesive bonds the optoelectronic device to a substrate.

Claim 48. (new) The adhesive according to claim 18 wherein said adhesive bonds a cover to the hermetically sealable package, forming an air tight package.

Claim 49. (new) The adhesive according to claim 18 wherein the optoelectronic device includes one of an optical fiber, an optical fiber array, a waveguide, and an optical diode.

Claim 50. (new) The adhesive according to claim 22, wherein said adhesive bonds the optoelectronic device to a substrate.

Claim 51. (new) The adhesive according to claim 22, wherein said housing includes a cover and package wall, said adhesive bonds said cover to said package wall forming an air tight package.

Claim 52. (new) The adhesive according to claim 22, wherein the optoelectronic device includes one of an optical fiber, an optical fiber array, a waveguide, and an optical diode.

Claim 53. (new) A hermetically sealable package having an optoelectronic device bonded therein comprising:

a housing configured to form a hermetic seal therein;

an optoelectronic device disposed within said package; and

a low outgassing adhesive bonding said optoelectronic device within said package, said low outgassing adhesive selected to limit the outgassing of organic molecules in a cured state in said hermetically sealable package, said low outgassing adhesive comprising an epoxy adhesive including an epoxy resin and a curing agent curable with radiation, said curing agent including one of primary, secondary, or tertiary amines and polyamines, substituted ureas, carboxylic acids, anhydrides, phenols, polyamides, formaldehyde resins,

polycarboxylic acid polyesters, Lewis acids and bases, polysulfides, polymercaptans, phenol novolac resin, and combinations including at least one of the forgoing.

Claim 54. (new) The package according to claim 53 wherein said radiation includes one of heat and ultraviolet light.

Claim 55. (new) The package according to claim 53, wherein said adhesive bonds the optoelectronic device to a substrate.

Claim 56. (new) The package according to claim 53, wherein said housing includes a cover and package wall, said adhesive bonds said cover to said package wall forming an air tight package.

Claim 57. (new) The package according to claim 53, wherein the optoelectronic device includes one of an optical fiber, an optical fiber array, a waveguide, and an optical diode.

Claim 58. (new) A hermetically sealable package having an optoelectronic device bonded therein comprising:

a housing configured to form a hermetic seal therein;

an optoelectronic device disposed within said package; and

a low outgassing adhesive bonding said optoelectronic device within said package, said low outgassing adhesive selected to limit the outgassing of organic molecules in a cured state in said hermetically sealable package, wherein said adhesive bonds a cover to the hermetically sealable package, forming an air tight package.

Claim 59. (new) The package according to claim 58, wherein said low outgassing adhesive includes a thermosetting adhesive.

Claim 60. (new) The package according to claim 59, wherein said thermosetting adhesive is selected from one of epoxy adhesives, fluorinated ethylene propylene adhesives, acrylic adhesives, and polyester adhesives.

Claim 61. (new) The package according to claim 59 wherein said adhesive bonds the optoelectronic device to a substrate.

Claim 62. (new) The package according to claim 59 wherein the optoelectronic device includes one of an optical fiber, an optical fiber array, a waveguide, and an optical diode.